TAMURA
Appl. No. 09/766,318
February 9, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A heat-resistant glass fiber which has a composition ~~comprising~~consisting essentially of, by weight %, 56 to 58.5% of SiO_2, 12 to 17% of Al_2O_3, 16 to 27% of CaO, 1 to 9% of MgO, 0 to 1% of Na_2O and 0 to 1% of K_2O as the entirety of the fiber and containing neither B_2O_3 nor F_2, and which has a surface layer portion made of a silicic glass having an SiO_2 content of at least 90% by weight, wherein the fiber substantially retains its flexibility when heated for ten hours at 900°C.

2. (Original) The heat-resistant glass fiber of claim 1, wherein the surface layer portion made of a silicic glass having an SiO_2 content of at least 90% by weight has a thickness of 0.1 to 1.0 μm.

3. (Original) The heat-resistant glass fiber of claim 1, wherein a difference ΔT between a spinning temperature which is a melting temperature of a glass having a viscosity of 100 Pa·s and a liqluidus temperature is at least 30°C.

4. (Original) A process for the production of the heat-resistant glass fiber recited in claim 1, which comprises treating the surface of a glass fiber which has a composition comprising, by weight %, 56 to 58.5% of SiO_2, 12 to 17% of Al_2O_3, 16 to 27% of CaO, 1 to 9% of MgO, 0 to 1% of Na_2O and 0 to 1% of K_2O and containing neither B_2O_3 nor F_2, with a mineral acid.

5. (Original) The process of claim 4, wherein the treatment is carried out by immersing the glass fiber in an aqueous solution containing, as the mineral acid, 1 to 10% by weight of at least one acid selected from HCl, H_2SO_4 or HNO_3 at a temperature of 0 to 90°C.

6. (Currently Amended) A heat-resistant glass fiber which has a surface layer portion at least 0.01 μm thick, made of silicic glass having an SiO_2 content of at least 90%, the balance of the glass fiber having a composition ~~comprising~~consisting essentially of, by weight %, 56 to 58.5% of SiO_2, 12 to 17% of Al_2O_3, 16 to 27% of CaO, 1 to 9% of MgO, 0 to 1% of Na_2O and 0 to 1% of K_2O as the entirety of the fiber and containing neither B_2O_3 nor F_2, wherein the fiber substantially retains its flexibility when heated for ten hours at 900°C.